

# HMI Basic & Comfort Panels

## Functional differentiation (1)



Criterion	HMI Basic Panel	HMI Comfort Panels	Nanopanel PC SIMATIC IPC277D
Open	Closed/ no WinCC SW options	Closed/ WinCC SW options	Open WinCC SW options Standard PC applications Integration of customer applications
Front sides	4:3, monochromatic or 256 colors 4" color widescreen	Uniform widescreen front sides: High resolution, 16 million colors, large viewing angle, dimable LED backlight (0%-100%)	
Display sizes	3" – 15" ; 4:3 KP400 color widescreen KTP400 color widescreen	4" - 22" widescreen	7" - 19" widescreen
Type of operation	KP300 keys, touch and keys from 4" to 10", touch 15"	Touch and Keys (4") Touch or keys (7"to 15") Touch (19" – 22")	Touch
Direct keys	---	DP and PN direct keys (also via touch)	---
Portrait installation	Possible for KTP400 color / KTP600 color	Possible for all touch devices	Possible for all devices
Front-side interface	---	---	USB for 15" / 19"
Interfaces (rear), fieldbus on board	1x PN (3", 4", 6", 10" & 15") or 1x DP (6" & 10")	2x 10/100 Mbit/s Ethernet (switch) / PROFINET with RT (from 7"); + 1 GBit/s Ethernet PROFINET Basic fct. (from 15") 1x RS485/422/PROFIBUS; 2x USB V2.0 Host 1 USB V2.0 device 4", see slide 37	2x 10/100/1000 Mbit/s Ethernet / PROFINET with RT; 3x USB 2.0; 1x COM (RS232)
Drives	---	1x SD slot (data), 1x SD slot (system card)	1x Compact Flash (accessible) or solid-state drive (internal)

# HMI Basic & Comfort Panels

## Functional differentiation (2)



Criterion	HMI Basic Panel	HMI Comfort Panels	Nanopanel PC SIMATIC IPC277D
Operating system	Smart	Windows CE	Ohne / WES 2009 / WES 7 Windows XP Prof. / Windows 7 Ult. Suited for Linux
Virus protection	Not susceptible to viruses	Not susceptible to viruses	Typical PC virus protection recommended; BeSy + application protection via EWF
HMI SW runtime	WinCC flexible 2008 or WinCC V10.5 and higher KP300 from WinCC RTV11 KP400/KTP400 color from WinCC RT V11	WinCC RT V11	
HMI quantity structures (tags)	Graduated	Graduated	Configurable
HMI retentive messages	Retentive message buffer		
HMI engineering	From WinCC Basic V11	From WinCC Comfort V11	From WinCC Advanced V11
Software controller	---	---	WinAC RTX (F) optional
Environment	Front side: IP65 Operating temperature: 0 to 50 °C		
Powerfail concept	Non-volatile	Non-volatile incl. archives	Protection against voltage failure for BeSy and application software possible via write protection (EWF); optional retentive data buffer
System diagnostics	---	SIMATIC system diagnostics viewer	
Additional HW diagnostics	---	---	IPC hardware diagnostics: Temperature, mass memory, operating hours counter, watchdog

# HMI Basic / Comfort Panels & Panel PCs

## Differences in system limitations



	Basic Panels 3" & 4"	Basic Panels 6", 10" & 15"	Comfort Panels 4"	Comfort Panels 7" - 12"	Comfort Panels 15"-22"	Nanopanel PC IPC277D 7"-19"
Tags	250	500	1024	2048	4096	128 - 2048
Alarms	200		2000	4000	6000	4000
Recipes	5		100	300	500	1000
Screens	50		500		750	500
Archives	---	---	10	50		100
Scripts	---	---	50	100	200	
Online languages	5		32			
Sm@rtClients	---	---	2	3		
Viewer/multimedia	---	---	Internet Explorer, PDF and Excel viewer, Media Player			PC-compatibility

The Comfort panels are clearly positioned as high-end panels.

## SIMATIC HMI Comfort Panels



- Product technology and customer benefits
- PROFlenergy
- Positioning
- **Engineering**
- Connection to controllers
- Technical data
- Added value by migrating
- Order data
- Naming

# The TIA portal: Intuitive, efficient, cutting-edge engineering

Do I need different engineering systems for different HMI applications?

Engineering Edition	WinCC Professional			
	WinCC Advanced			
	WinCC Comfort			
	WinCC Basic			
Devices	Basic Panels	Comfort Panels, Mobile Panels	Panel PCs	SCADA